

This listing of claims replaces all prior versions, and listings, of claims in this application.

Listing of Claims:

1. (Original) A crystal forming apparatus comprising:
 - a plate having a site adapted to hold a screening solution; and
 - a film adjacent to the plate, wherein the film seals the site, and wherein the film is adapted to contain a precipitant solution inside the site with an air gap between the screening solution and the precipitant solution.
2. (Original) The apparatus of claim 1, wherein the plate is a microplate, and wherein the site is a well of the microplate.
3. (Original) The apparatus of claim 2, wherein the well has an upper rim and wherein the apparatus further comprises a sealant on the upper rim that seals the film to the well.
4. (Original) The apparatus of claim 3, wherein the sealant is selected from a group consisting of a malleable sealant with adhesive properties, a gasket with adhesive properties, an adhesive, grease, oil, a gasket, and a combination thereof.
5. (Original) The apparatus of claim 2, wherein the film is supported by a frame that mounts over the microplate.
6. (Original) The apparatus of claim 2, further comprising:
 - a sample of screening solution in the well; and
 - a sample of precipitant solution held by the film and suspended over the sample of screening solution.
7. (Original) The apparatus of claim 1, wherein the film is a first film,

wherein the plate comprises a second film supported by a first support structure,

wherein the first film is supported by a second support structure, wherein the second support structure is disposed on top of the second film, wherein the first film is disposed on a side of the second support structure opposite the second film, and wherein the second support structure and the first film are adapted to seal the site.

8. (Original) The apparatus of claim 7, wherein the second film has a hydrophobic mask adapted to hold the precipitant solution and the screening solution apart.
9. (Original) The apparatus of claim 7, wherein the second support structure comprises a lattice having a first through-hole, a second through-hole, and a passageway connecting the first through-hole to the second through-hole.
10. (Original) The apparatus of claim 9, further comprising a sample of screening solution disposed in the first through-hole and a sample of precipitant solution disposed in the second through-hole.
11. (Original) The apparatus of claim 9, wherein the site comprises the first through-hole, the second through-hole, and the passageway.
12. (Original) The apparatus of claim 9, wherein the lattice has a third through-hole, a fourth through-hole, a second passageway connecting the second through-hole to the third through-hole, a third passageway connecting the third through-hole to the fourth through-hole, and a fourth passageway connecting the fourth through-hole to the first through-hole.
13. (Original) The apparatus of claim 12, further comprising a sample of precipitant solution disposed in the first through-hole, a first sample of screening solution disposed in the second

through-hole, a second sample of screening solution disposed in the third through-hole, and a third sample of screening solution disposed in the fourth through-hole.

14-18. (Canceled)

19. (Original) A crystal forming apparatus comprising:

a microplate having wells adapted to receive a screening solution; and

a film bonded to a frame, wherein the frame is coupled to the microplate such that the film seals the wells, and wherein the film is adapted to receive a precipitant solution.

20. (Original) The apparatus of claim 19, further comprising a layer of grease between the film and the wells.

21. (Original) The apparatus of claim 19, wherein the film has a hydrophobic mask adapted to hold samples of the precipitant solution within the wells.

22. (Original) The apparatus of claim 19, further comprising:

a sample of the screening solution in a well; and

a sample of the precipitant solution held by the film within the well and suspended over the screening solution with an air gap between the precipitant solution and the screening solution.

23. (Original) A crystal forming apparatus comprising:

a first film supported by a first support structure, wherein the first film is adapted to receive a screening solution and a precipitant solution;

a second film supported by a second support structure, wherein the second support structure is adjacent to the first film, wherein the second film is on a side of the second support

structure opposite the first film, and wherein the first film, the second film, and the second support structure are adapted to seal the screening solution and the precipitant solution within a site with an air gap between the screening solution and the precipitant solution.

24. (Original) The apparatus of claim 23, wherein the first film has a hydrophobic mask adapted to hold the screening solution and the precipitant solution at distinct subsites within the site.

25. (Original) The apparatus of claim 24, wherein the distinct subsites are aligned with through-holes in the second support structure.

26. (Original) The apparatus of claim 23, wherein the second support structure comprises a lattice structure having a first through-hole, a second through-hole, and a passageway connecting the first through-hole to the second through-hole.

27. (Original) The apparatus of claim 26, further comprising a sample of screening solution disposed in the first through-hole and a sample of precipitant solution disposed in the second through-hole.

28. (Original) The apparatus of claim 27, wherein the sample of screening solution and the sample of precipitant solution are in contact with the first film and the second film in a sandwich drop configuration.

29. (Original) The apparatus of claim 26, wherein the first support structure comprises a lattice structure having a third through-hole aligned with the first through-hole of the second support structure and a fourth through-hole aligned with the second through-hole of the second support structure.

30. (Original) The apparatus of claim 23, wherein the second support structure is bonded to the first film and the second film using a sealant selected from a group consisting of a malleable sealant with adhesive properties, a gasket with adhesive properties, an adhesive, grease, oil, a gasket, and a combination thereof.

31. (Original) The apparatus of claim 30, wherein the first support structure is bonded to the first film using a sealant selected from a group consisting of a malleable sealant with adhesive properties, a gasket with adhesive properties, an adhesive, grease, oil, a gasket, and a combination thereof.

32. (Original) The apparatus of claim 23, wherein the first film and the second film are transparent to electromagnetic radiation.

33-50. (Canceled)